FBI 100

Feedback Loop Isolator for Audio and Video

FEATURES

- **Selectively cuts VCR input path or output path to prevent A/V feedback loop through VCR**
- **Active circuitry provides high performance and noise-free operation**
- **Dual-color LED indicates recording mode or playback/stop mode**
- **Contact closure control for simple, automated operation**
- **Balanced or unbalanced stereo audio input and output**
- **Rack-mountable 1U, quarter rack width metal enclosure**
- **External universal power supply included**, part # 70-055-01 — Provides worldwide power compatibility

DESCRIPTION

The Extron **FBI 100** Feedback Loop Isolator is designed to prevent potential feedback loops when a VCR is used for both recording and playback in an A/V system. As the VCR records signals through its A/V input, such as from a video camera and microphone, it outputs the same signals back into the system. The FBI 100 prevents the audio feedback loop, represented as a progressively loud tone that can occur if the VCR output signal is routed back into its A/V input via a switching system.

For example, feedback is likely to occur in a videoconference environment when mixed audio from the videoconference session is simultaneously recorded and introduced back into the system as an active source.

In record mode, the FBI 100 prevents feedback loops by directing the information to be recorded specifically to the VCR's A/V input while isolating the VCR output from the rest of the system. For other VCR modes, such as playback and stop, the VCR outputs to the A/V system as normal.

Contact closure control provides a simple means of selecting the record or playback/stop mode of the FBI 100. Part of the VersaTools® line of small, economical, integrator friendly products, the FBI 100 is housed in a 1U, quarter rack width metal enclosure.

SPECIFICATIONS

VIDEO

Gain	Unity
Bandwidth	10 MHz (-3 dB)

VIDEO INPUT

Number / Signal type	2 composite video
Connectors	2 female BNC
Nominal level	1 Vp-p for composite video (including sync)
Minimum / Maximum levels	Analog: 0.3 V to 1.5 Vp-p with no offset
Impedance	75 ohms
Input coupling	DC

VIDEO OUTPUT

Number / Signal type	2 composite video
Connectors	2 female BNC
Nominal level	1 Vp-p for composite video (including sync)
Minimum / Maximum levels	Analog: 0.3 V to 1.5 Vp-p with no offset
Impedance	75 ohms

SYNC

Standards	NTSC 3.58, NTSC 4.43, PAL, SECAM

AUDIO

Gain	
Overall (from "From Source" to "To Destination")	Unbalanced output: -6 dB; balanced output: 0 dB
From "From Source" to "To VCR In"	-12 dB
From "From VCR Out" to "To Destination"	Unbalanced output: +6 dB; balanced output: +12 dB
Frequency response	20 Hz to 20 kHz, ±0.05 dB
THD + Noise	0.03% @ 1 kHz at nominal level
S/N	>90 dB at maximum output (unweighted)
Stereo channel separation	>80 dB @ 1 kHz, >60 dB @ 20 kHz
CMRR	>75 dB @ 20 Hz to 20 kHz

AUDIO INPUT

Number / Signal type	
"From Source"	1 stereo balanced/unbalanced
"From VCR Out"	1 stereo, unbalanced
Connectors	
"From Source"	(1) 3.5 mm captive screw connector, 5 pole
"From VCR Out"	1 pair RCA
Impedance	>12k ohms unbalanced, 24k ohms balanced, DC coupled
Nominal level	
"From Source"	+4 dBu (1.23 Vrms)
"From VCR Out"	-10 dBV (316 mVrms)
Maximum level	
"From Source"	+27 dBu, (balanced) at 1% THD+N
"From VCR Out"	+11 dBV, (unbalanced) at 1% THD+N
Input coupling	DC

AUDIO OUTPUT

Number / Signal type	
"To VCR In"	1 stereo, unbalanced
"To Destination"	1 stereo, balanced/unbalanced
Connectors	
"To VCR In"	1 pair RCA
"To Destination"	(1) 3.5 mm captive screw connector, 5 pole
Impedance	>50k ohms unbalanced, 100k ohms balanced, DC coupled
Maximum level	
"From Source"	+25 dBu, balanced at 1% THD+N
"From VCR Out"	+11 dBV, unbalanced at 1% THD+N

CONTROL / REMOTE — FEEDBACK ISOLATOR

CP Control Port	(1) 3.5 mm captive screw connector, 2 pole contact, controlled by an external control system.

GENERAL

External power supply	100 VAC to 240 VAC, 50/60 Hz, external, to 12 VDC, 1 A (max), regulated
Power input requirements	12 VDC, 0.2 A
Rack mount	Yes, with optional rack shelves (See optional accessories.)
Enclosure type	Metal
Enclosure dimensions	1.7" H x 4.4" W x 3.0" D (1U high, quarter rack wide) 4.3 cm H x 11.3 cm W x 7.6 cm D (Depth excludes connectors)
Product / Shipping weight	0.7 lbs (0.3 kg) / 3 lbs (2 kg)

MODEL

MODEL	VERSION DESCRIPTION	PART #
FBI 100	VCR Feedback Loop Isolator	60-743-01

OPTIONAL ACCESSORIES	MODEL DESCRIPTION	PAGE	PART #
RSF 123	1U 3.5" Deep VersaTools® Rack Shelf Kit	page 818	60-190-20
RSB 123	1U 3.5" Deep Basic Rack Shelf	page 818	60-604-20
MBU 123	VersaTools® Mini Under-Desk Mount Kit	page 815	70-212-01
PMK 100	One VersaTools®, 1/4 Rack Width Mini Projector Mounting Kit	page 813	70-217-01

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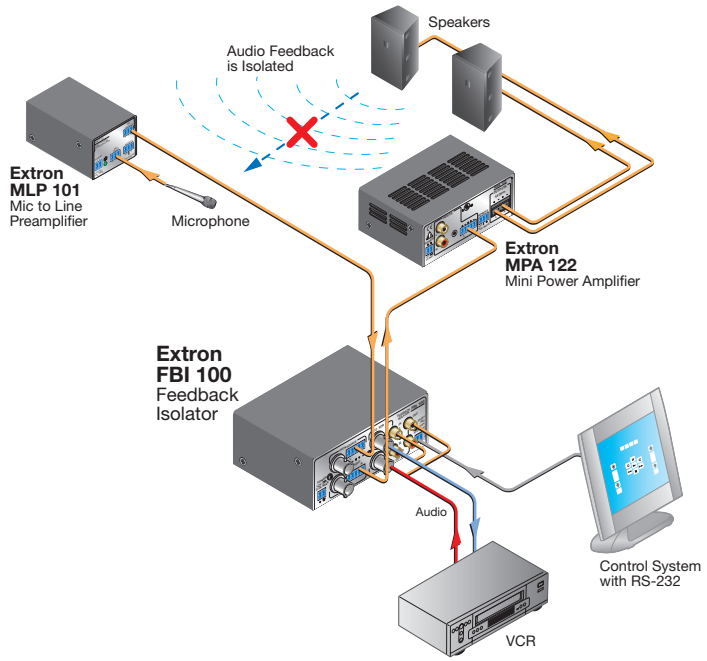
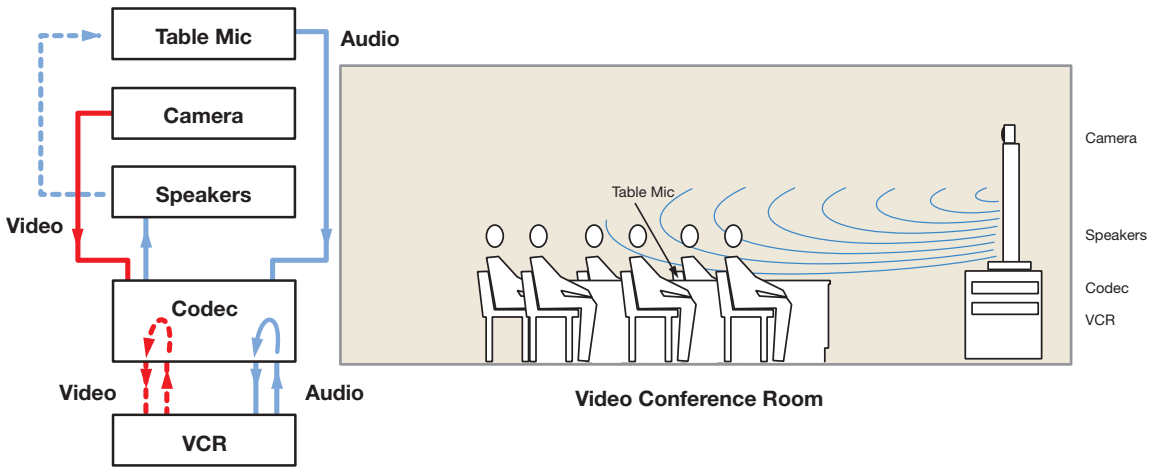
Extron®

FBI 100





Over the Air Audio Feedback → Results in a very loud single tone.

Electronic Audio Feedback → Results in a very loud single tone.

Electronic Video Feedback → Results in an endlessly looping image.

Extron

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